UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,805	09/17/2003	Sang Hyun Kim	8733.913.00-US	3765

30827 7590 03/17/2006

MCKENNA LONG & ALDRIDGE LLP
1900 K STREET, NW
WASHINGTON, DC 20006

EXAMINER	
GOUDREAU, GEORGE A	
ART UNIT	PAPER NUMBER
1763	

DATE MAILED: 03/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/663,805	KIM, SANG HYUN	
	Examiner	Art Unit	
	George A. Goudreau	1763	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *05 January 2006*.

2a)☒ This action is FINAL. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-23* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-23* is/are rejected.

7)☐ Claim(s) ____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☒ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

George A Goudreau

GEORGE GOUDREAU
PRIMARY EXAMINER
3-26-06

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Claims 1-23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

-In the claims, the usage of the term "predetermined" is vague, and indefinite.

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by Hirabayashi et. al. as applied in paragraph 3 of the previous office action.

4. Claim 14 is rejected under 35 U.S.C. 102(b) as being anticipated by Shibuya et. al. as applied in paragraph 4 of the previous office action.

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 15-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over the references as applied in paragraph 6 of the previous office action.

7. Applicant's arguments filed 1-5-06' have been fully considered but they are not persuasive.

Applicant argues the following points regarding the examiner's rejection of their claimed subject material.

-The prior art references (Hirabayashi et. al., Shibuya et. al.) which were used by the examiner to reject applicant's claims under 102 b do not anticipate applicant's invention as claimed in claim 14 based upon the following. These references fail to teach the reduction in thickness of the crystallized polysi layer to "a predetermined thickness" as is claimed in claim 14. Further, the cmp polishing step which is used to treat the surface of the crystallized polysi layer in these references does not reduce the thickness of this layer to a "predetermined thickness" as is purported by the examiner. The usage of Takagi as a secondary reference in the rejection of applicant's claims fails to remedy these deficiencies in the primary references. Thus, applicant's claims are not properly rejectable under 103 as done by the examiner in his previous office action.; and

-Applicant fails to understand why claim 23 is rejected under 112 2nd paragraph for the usage of "predetermined" since it does not contain this word.

The examiner must disagree.

-The prior art references (Hirabayashi et. al., Shibuya et. al.) which were used by the examiner to reject applicant's claims under 102 b do anticipate applicant's invention as claimed in claim 14 based upon the following. Both of these references teach the usage of a cmp-polishing step to reduce the thickness of

the crystallized polysi layer. In Hirabayashi et. al. the removal of the protrusions from the surface of this layer during the cmp polishing step would reduce the thickness of this layer as a whole since the protrusions are part of this layer. In Shibuya et. al., the thickness of the crystallized polysi layer is reduced to (30-50) nm from its previous value by cmp polishing this layer. Also, the point at which the cmp polishing step is terminated in each of these reference determines the amount by which the thickness of this layer is reduced. Thus, all of applicant's claimed limitations are fully met in this regard. Further, the usage of the term "predetermined" in the claims is vague, and indefinite as previously pointed out by the examiner. This is especially problematic in claims, which can also be rejected over the prior art of record. ; and

-Claim 23 is rejected under 112 2nd paragraph for the usage of the term "predetermined" since it depends upon claims, which do use this word. Further, claim 23 fails to remedy the usage of this term in the claims upon which it depends. Thus, claim 23 is also rejected under 112 2nd paragraph for the usage of the term predetermined based upon the usage of this term in claims upon which it depends.

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication should be directed to examiner George A. Goudreau at telephone number (571)-272-1434.

George A. Goudreau
Primary Examiner
Art Unit 1763